



WPDES PERMIT

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
**PERMIT TO DISCHARGE UNDER THE
WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM**

Crave Brothers Farm LLC

is permitted, under the authority of Chapter 283, Wisconsin Statutes, to discharge from a facility located at

Home Farm - W11550 Torpy Road, Waterloo, T9N R13E Sec 21 W 1/2
Hoffman Farm – N 414 Highway 89, Waterloo
Powers Farm – W 12075 Highway 89, Waterloo
Schultz Farm – W 12424 Glory Road, Waterloo
Kidd Farm – N 918 Highway I, Waterloo

to the groundwaters of the Lower Crawfish River and the Maunesha River Watersheds, tributaries to the Upper Rock River Drainage Basin in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit, according to Chapter NR 200, Wis. Adm. Code, at least 180 days prior to the expiration date given below.

State of Wisconsin Department of Natural Resources
For the Secretary

By _____
Lloyd L. Eagan
South Central Regional Director

Date Permit Signed/Issued

PERMIT TERM: EFFECTIVE DATE - November 01, 2006

EXPIRATION DATE - September 30, 2011

TABLE OF CONTENTS

1 LIVESTOCK OPERATIONAL AND SAMPLING REQUIREMENTS	1
1.1 GENERAL DISCHARGE LIMITATIONS AND PERFORMANCE STANDARDS	1
1.2 MANURE MANAGEMENT.....	2
1.3 SAMPLING POINT(S).....	2
1.3.1 Manure Storage Facilities	2
1.3.2 Composting System(s).....	4
1.3.3 Runoff Control System(s) - No Sampling Required.....	5
1.4 MONITORING REQUIREMENTS AND LIMITATIONS	6
1.4.1 Sampling Point 004 - Lagoon 1 - Home Farm; 007- Manure Digester - 1 - Home; 008- Manure Digester - 2 - Home; 019- Above Ground Tank - Home Farm ; 016- Manure Storage Unit - Kidd.....	6
1.4.2 Sampling Point 005 - Separated Solids - Home Farm; 006- Solid Manure - Home Farm; 009- Manure Storage - Kidd Farm; 010- Manure Storage - Schultz Farm; 011- Manure Storage - Hoffman Farm; 012- Manure Storage - Powers Farm	8
2 LAND APPLICATION REQUIREMENTS	11
2.1 SAMPLING POINT(S).....	11
2.2 MONITORING REQUIREMENTS AND LIMITATIONS	11
2.2.1 Sampling Point (Outfall) 001 - Process WW - Storage Tank.....	11
3 SCHEDULES.....	13
3.1 LIVESTOCK OPERATIONS - MONITORING & INSPECTION PROGRAM	13
3.2 MANURE MANAGEMENT PLAN WITH PHOSPHORUS LIMITATIONS	13
3.3 ANNUAL REPORTS	13
3.4 PASTURE MANAGEMENT PLAN	14
3.5 MANURE STORAGE FACILITY - ENGINEERING EVALUATION - HOME FARM.....	14
3.6 RUNOFF CONTROL SYSTEM - ENGINEERING EVALUATION - HOME FARM.....	14
3.7 RUNOFF CONTROL SYSTEM - INSTALLATION - HOFFMAN FARM	15
3.8 RUNOFF CONTROL SYSTEM - INSTALLATION - POWERS FARM - CONCRETE LOT	15
3.9 RUNOFF CONTROL SYSTEM - ABANDONMENT - POWERS EARTHEN LOT	15
3.10 RUNOFF CONTROL SYSTEM - ABANDONMENT - KIDD FARM EARTHEN LOT	15
3.11 RUNOFF CONTROL SYSTEM - ABANDONMENT - KIDD FARM CONCRETE LOT	16
3.12 MANURE STORAGE FACILITY - ENGINEERING EVALUATION - KIDD FARM	16
3.13 RUNOFF CONTROL SYSTEM - ABANDONMENT - SCHULTZ FARM	16
3.14 COMPOSTING SYSTEM INSTALLATION.....	16
3.15 DIGESTER INFLUENT/EFFLUENT CHARACTERIZATION	17
3.16 SUBMIT PERMIT REISSUANCE APPLICATION	17
4 STANDARD REQUIREMENTS	18
4.1 REPORTING AND MONITORING REQUIREMENTS FOR INDUSTRIAL DISCHARGES.....	18
4.1.1 Sampling and Testing Procedures	18
4.1.2 Recording of Results	18
4.1.3 Records Retention.....	18
4.1.4 Other Information.....	18
4.2 SYSTEM OPERATING REQUIREMENTS FOR INDUSTRIAL DISCHARGES	18
4.2.1 Noncompliance Notification	18
4.2.2 Spill Reporting	19
4.2.3 Planned Changes	19
4.2.4 Duty to Halt or Reduce Activity.....	19
4.3 LAND APPLICATION REQUIREMENTS FOR INDUSTRIAL DISCHARGES	19
4.3.1 Land Application Characteristic Report.....	20
4.3.2 Land Application Report.....	20
4.3.3 Other Methods of Disposal or Distribution Report	20
4.3.4 Land Application Site Approval.....	20
4.3.5 Operating Requirements/Management Plan.....	20

4.3.6 Chloride Requirements for Liquid Wastes and By-Product Solids	20
4.3.7 Nitrogen Requirements for Liquid Wastes and By-Product Solids and Sludges	21
4.3.8 Ponding	21
4.3.9 Runoff	21
4.3.10 Soil Incorporation Requirements	21
4.3.11 Additional Requirements from ch. NR 214, Wis. Adm. Code	21
4.3.12 Winter Spreading Restrictions for Industrial Liquid Wastewater	21
4.4 GENERAL CONDITIONS	22
4.4.1 Duty to comply	22
4.4.2 Permit Actions	22
4.4.3 Property Rights	22
4.4.4 Schedules	22
4.4.5 Inspection and Entry	22
4.4.6 Transfers	22
4.4.7 Duty to Mitigate	23
4.4.8 Duty to Provide Information	23
4.4.9 Proper Operation and Maintenance	23
4.4.10 Manure Storage Facility Closure and Abandonment	23
4.4.11 Reports and Submittal Certification	24
4.4.12 Duty to Maintain Permit Coverage	24
4.5 LIVESTOCK OPERATIONS REQUIREMENTS	24
4.5.1 Manure Management Plan Content	24
4.5.2 Scheduled Permit Requirements (EXISTING/EXPANDING SOURCES ONLY)	26
4.5.3 Manure Management Plan Approvals	26
4.5.4 Manure Management Plan Amendments and Annual Updates	27
4.5.5 Spreading Sites Submittals	27
4.5.6 Manure Spreading Prohibitions	27
4.5.7 Incorporation Within 48 Hours	27
4.5.8 Frozen Ground	28
4.5.9 Field Spreading of Manure	28
4.5.10 Non-Cropland Applications	28
4.5.11 Surface Applied Manure Prohibitions	28
4.5.12 Mortality Management	28
4.5.13 Plans and Specifications	29
4.5.14 Existing Manure Storage Facilities Evaluation	29
4.5.15 Existing Runoff Control System(s) Evaluation	29
4.5.16 Manure Storage Facility, Composting and Compost Leachate Containment Systems - Installation Plan Requirements	29
4.5.17 Runoff Control Systems - Installation Plan Requirements	30
4.5.18 Requirements for Digesters for Biogas Production	30
4.5.19 Quarterly Inspection Reports	31
4.5.20 Annual Reports	31
4.5.21 Objectionable Odors	31
5 SUMMARY OF REPORTS DUE	32

1 Livestock Operational and Sampling Requirements

1.1 General Discharge Limitations and Performance Standards

Beginning on the effective date of the permit, there shall be no discharge of pollutants to navigable waters from the animal production area except in the event a 25-year, 24-hour rainfall event, or a chronic rainfall event, causes a discharge of pollutants from a storage or containment structure to navigable waters and the following conditions are met:

- The structure is properly designed, constructed and maintained to contain manure, process wastewater, direct precipitation and contaminated runoff from the 25-year, 24-hour rainfall event,
- The permittee is conducting and recording daily and weekly visual inspections and implementing corrective actions in compliance with permit requirements, and
- The discharge complies with surface water quality standards.

Spills and accidental releases must be reported immediately in accordance with the Spill Reporting subsection in the Standard Requirements. Other discharges to navigable waters shall be reported to the Department in accordance with the timeframes specified in the Noncompliance-24 Hour Reporting subsection in the Standard Requirements.

The animal production area includes, but is not limited to: (1) any storage, containment or treatment structures, facilities or areas for manure, raw materials, mortality management and process wastewaters, (2) animal confinement areas including outdoor animal lots and (3) unconfined storage areas (such as headland stacking), if approved.

Manure includes, but is not limited to, manure mixed with bedding, litter or runoff.

Process wastewaters include, but are not limited to, contaminated runoff, milking center wastes, leachate, washwater and other wastewaters associated with raw materials.

Raw materials include, but are not limited to, pesticides, herbicides, fertilizers, silage, haylage, grain and other feed sources. Chronic rainfall events are a series of wet weather conditions that preclude removal of manure or process wastewaters from a properly designed, operated and maintained structure and land application in a safe manner.

Beginning on the effective date of the permit, if this permit contains a construction schedule to install permanent controls, the permittee shall implement interim measures necessary to ensure there is no discharge of pollutants to navigable waters. The limitations in this permit section including the conditions of this subsection (General Discharge Limitations and Performance Standards) apply to all activities covered under this permit, except for land application activities.

All structures shall be designed, constructed and operated to control manure and process wastewater for the purpose of complying with effluent limitations established above in this subsection (General Discharge Limitations and Performance Standards) and complying with groundwater standards. All runoff controls shall be designed for the maximum amount of rainfall generated by a 25-year, 24 hour rainfall event for this location (**Dodge County – 4.6 inches**). Uncontaminated runoff shall be diverted away from manure and process wastewater storage and containment areas, raw materials storage and containment areas, and outdoor animal lots. All storage and containment structures shall be operated to maintain adequate freeboard in accordance with the Proper Operations and Maintenance subsection in the Standard Requirements.

Consistent with the conditions of this subsection (General Discharge Limitations and Performance Standards), the permittee shall comply with the following restrictions:

- The permittee may:
 1. have no overflow of manure storage facilities;
 2. have no direct runoff from a feedlot or stored manure to waters of the state;

3. not allow livestock to come into direct contact with navigable waters in the animal production area;
 4. not allow unlimited access by livestock to waters of the state in a location where high concentrations of animals prevent maintenance of adequate sod cover.
- If an unconfined manure pile or stack has been approved by the Department, the permittee may have no unconfined manure pile/stack in a water quality management area defined as:
 1. the areas within 1,000 feet from the ordinary high water mark for navigable waters that consist of a lake, pond, or flowage;
 2. the area within 300 feet from the ordinary high-water mark of navigable waters that consist of a river or stream; or
 3. a site that is susceptible to groundwater contamination or that has the potential to be a direct conduit for contamination to reach groundwater.
 - There shall be no landspreading of liquid manure on frozen and/or snow covered ground except:
 1. In an emergency where conditions exist that threaten human or animal life/health, property or the environment; or
 2. As allowed in emergency provisions of this permit or in the Department approved Manure Management Plan; or
 3. when manure is properly incorporated. For purpose of this permit, incorporation is the mixing of manure with soil using standard agricultural practices such as tillage or injection to achieve coverage of 80% of the applied manure with soil.

All emergency landspreading of liquid manure on frozen and/or snow covered ground shall be done in accordance with the Manure Management Plan. The permittee shall contact the Department orally prior to emergency landspreading. A written submission detailing the event shall also be provided within 5 days of the oral contact.

1.2 Manure Management

Manure and other process wastewaters shall be collected and safely spread on land, treated or stored until it can be safely landspread. All landspreading of manure and other process wastewaters shall be completed in accordance with the land application conditions of this permit and the Manure Management Plan once approved, in a manner that does not cause or contribute to the non-attainment of surface water quality standards or groundwater standards. The permittee is required to submit a Manure Management Plan as specified in the Schedules section. The Manure Management Plan shall include provisions for the proper application and utilization of contaminated feedlot runoff, stormwater runoff, milking center wastewaters, compost, and/or compost leachate if it is landspread. This includes provisions addressing requirements for daily spreading records and annual reporting requirements.

1.3 Sampling Point(s)

The permittee is authorized to use only the facilities identified below, in accordance with the specified conditions. The permittee may not install or use new facilities or structures or land apply manure or other process wastewaters from these facilities unless written Department approval is received. A new facility is any facility that is not specifically identified in this permit. If a new facility is approved in writing by the Department, the conditions in the corresponding 'New Facility' sampling point (e.g. Manure Storage Facilities, Runoff Control Systems) will apply.

1.3.1 Manure Storage Facilities

In accordance with the General Discharge Limitations and Performance Standards subsection, manure storage facilities shall be operated and maintained to prevent discharges to navigable waters and to comply with surface water quality standards. In addition, manure storage facilities shall be operated and maintained to minimize leakage for the purpose of complying with groundwater standards. All manure storage facilities shall be maintained with adequate freeboard as specified in the Standard Requirements in order to avoid overtopping. Unless specifically approved and designated by the Department as a sampling point, in-field unconfined storage of manure (headland stacking) is prohibited. The permittee is authorized to use facilities identified below, in accordance with the specified conditions.

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, System Description (including capacity, legal location, and action needed as applicable), and Treatment Description
004	Lagoon 1 - Home Farm at W11550 Torpy Road - 8.2 million gallon concrete manure storage unit to be constructed in 2006. This lagoon is planned for liquid effluent from the solid separator and composting building and leachate from the feed storage bunkers. If the solid separator/composting system is not operating, the digested slurry will go directly to the lagoon from the digester. The digested slurry could contain manure from barns 1 - 5, from the proposed two freestall barns and heifer barn, whey and process wastewater, and other organic materials. It could also receive manure and process wastewater directly from any of the farm sources if the digester is not operating. Land application must be addressed in an approved Nutrient Management Plan. This storage unit must be operated and maintained for six months of storage.
006	Miscellaneous solid manure sources from the Home Farm at W11550 Torpy Road. Existing sources of solid manure that are not consistently mixed with liquid manure, added to the digester, or stored in a solid manure storage unit, shall be tracked under this sampling point. Representative samples of pen manure, bedding pack, or other solid manure shall be taken. Land application must be addressed in an approved Nutrient Management Plan.
007	Anaerobic Manure Digester - 1 - Home Farm at W11550 Torpy Road; Planned construction in 2006. Plans are for all manure produced at this facility to be directed into the digester. Digester effluent will normally be transferred to the separated solids area and the liquid transferred to the 8.2 million inground manure storage lagoon. This sample point will only be used if digester effluent is land applied. Land application must be addressed in an approved Nutrient Management Plan.
008	Anaerobic Manure Digester - 2 - Home Farm at W11550 Torpy Road; Planned construction by 2010. Plans are for all manure produced at this facility to be directed into the digester. Digester effluent will normally be transferred to the separated solids area and the liquid transferred to the 8.2 million inground manure storage lagoon. This sample point will only be used if digester effluent is land applied. Land application must be addressed in an approved Nutrient Management Plan.
019	Above Ground Tank - Home Farm - whey and process wastewater generated at the cheese plant. This sample point will be used for land application of whey and process wastewater not directed to other sources. Land application of whey and process wastewater must be included in an approved Nutrient Management Plan.
009	Miscellaneous solid manure sources from the Kidd Farm at N918 County Hwy I, Waterloo. Existing sources of solid manure that are not consistently mixed with liquid manure, added to the digester, or stored in a solid manure storage unit, shall be tracked under this sampling point. Representative samples of pen manure, bedding pack, or other solid manure shall be taken. Land application must be addressed in an approved Nutrient Management Plan.
010	Miscellaneous solid manure sources from the Schultz Farm at W12424 Glory Road, Waterloo. Existing sources of solid manure that are not consistently mixed with liquid manure, added to the digester, or stored in a solid manure storage unit, shall be tracked under this sampling point. Representative samples of pen manure, bedding pack, or other solid manure shall be taken. Land application must be addressed in an approved Nutrient Management Plan.

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, System Description (including capacity, legal location, and action needed as applicable), and Treatment Description
011	Miscellaneous solid manure sources from the Hoffman Farm at N414 Hwy 89, Waterloo. Existing sources of solid manure that are not consistently mixed with liquid manure, added to the digester, or stored in a solid manure storage unit, shall be tracked under this sampling point. Representative samples of pen manure, bedding pack, or other solid manure shall be taken. Land application must be addressed in an approved Nutrient Management Plan.
012	Miscellaneous solid manure sources from the Powers Farm at W12075 Hwy 89, Waterloo. Existing sources of solid manure that are not consistently mixed with liquid manure, added to the digester, or stored in a solid manure storage unit, shall be tracked under this sampling point. Representative samples of pen manure, bedding pack, or other solid manure shall be taken. Land application must be addressed in an approved Nutrient Management Plan.
016	Manure Storage Unit - Kidd Farm - This sample point covers the 300,000 gallon inground manure storage unit at the Kidd Farm at N918 County Hwy I, Waterloo.

Manure Storage Facilities - Action Needed: For manure storage facilities that are to be installed, evaluated or abandoned (as indicated in the above table), see the Schedules section herein for actions required. Although this permit may require actions for installing permanent facilities, or controls, or modifications to existing facilities, interim measures shall be immediately implemented to prevent discharges of pollutants to navigable waters. Specifically, if monitoring or inspection reports indicate any storage facility may not be able to prevent discharges to navigable waters in accordance with the conditions in the General Discharge Limitations and Performance Standards subsection, the permittee shall immediately install interim control measures to contain the discharges. Plans and specifications for permanent facilities must be submitted to the Department for review and approval in accordance with Chapter 281.41, Wis. Statutes, and Chapter NR 108, Wis. Adm. Code.

1.3.2 Composting System(s)

The permittee shall identify in the Manure Management Plan the amount and source of manure to be composted. If the permittee proposes a change to the amount to be composted, a Manure Management Plan Amendment must be submitted. In accordance with the General Discharge Limitations and Performance Standards subsection, composting systems shall be operated and maintained to prevent discharges to navigable waters and to comply with surface water quality standards. In addition, composting systems shall be operated and maintained to minimize leakage for the purpose of complying with groundwater standards. The permittee is authorized to use the systems identified below, in accordance with the specified conditions.

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, System Description (including capacity, legal location, and action needed as applicable), and Treatment Description
005	Separated Solids and Composting Building - Home Farm at W11550 Torpy Road. Separated solids that are stored or composted in a new 40' x 105' concrete processing building shall be tracked under this sampling point. Representative samples of separated solids or compost shall be taken prior to land application. Land application of separated solids or compost is not planned at this time. Land application must be addressed in an approved Nutrient Management Plan.

Composting System(s) - Action Needed: For composting systems that are to be installed, evaluated or abandoned (as indicated in the above table), see the Schedules section herein for actions required. Although this permit may require permanent control measures, interim measures shall be implemented to prevent discharges of pollutants to navigable waters. Specifically, if monitoring or inspection reports indicate composting systems may not be able to prevent discharges to navigable waters in accordance with conditions in the General Discharge Limitations and Performance Standards subsection, the permittee shall immediately install interim control measures to contain the discharges. Plans and specifications for permanent systems must be submitted to the Department for review and approval in accordance with Chapter 281.41, Wis. Statutes, and Chapter NR 108, Wis. Adm. Code.

1.3.3 Runoff Control System(s) - No Sampling Required

In accordance with the General Discharge Limitations and Performance Standards subsection, the permittee shall control contaminated runoff from all elements of the livestock operation to prevent a discharge of pollutants to navigable waters and to comply with surface water quality standards and groundwater standards.

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, System Description (including capacity, legal location, and action needed as applicable), and Treatment Description
013	Permanent Feedlot Runoff Controls - Kidd Farm - This sample point covers the outside feedlots at the Kidd Farm at N918 County Hwy I, Waterloo. The runoff control system will be upgraded in 2007. The Earthen Lot will be abandoned in 2007 and the Concrete Lot will be abandoned in 2008.
014	Permanent Feedlot Runoff Controls - Schultz Farm - This sample point covers the outside feedlots at the Schultz Farm at W12424 Glory Road, Waterloo. The runoff control system will be upgraded in 2006. Both the Earthen Lot and the Concrete Lot will be abandoned in 2008.
015	Permanent Feedlot Runoff Controls - Home Farm at W11550 Torpy Road, Waterloo. This sample point covers the outside feedlots at the Home Farm.
017	Permanent Feedlot Runoff Controls - Hoffman Farm at N414 Hwy 89, Waterloo. This sample point covers the outside feedlot at the Hoffman Farm. There is one concrete lot which will be upgraded in 2006. A permanent runoff control system will be installed in 2007.
018	Permanent Feedlot Runoff Controls - Powers Farm at W12075 Hwy 89, Waterloo- This sample point covers the outside feedlots at the Powers Farm. There is one earthen lot and one concrete lot which will both be upgraded in 2006. The earthen lot will be abandoned in 2007 and plans and specifications for the permanent runoff control system at the concrete lot will be submitted and the practices installed in 2007.

Runoff Control System(s) - Action Needed: For runoff control systems that are to be installed, evaluated or abandoned (as indicated in the above table), see the Schedules section herein for actions required. Although permanent control measures may be required by this permit, interim measures shall be implemented to prevent discharges of pollutants to navigable waters. Specifically, if monitoring or inspection reports indicate that manure or process wastewater may be discharged to navigable waters from the animal production area, in violation of the conditions in the General Discharge Limitations and Performance Standards subsection, the permittee shall immediately install interim control measures to contain the discharges. Plans and specifications for permanent runoff controls must be submitted to the Department for review and approval in accordance with Chapter 281.41, Wis. Statutes, and Chapter NR 108, Wis. Adm. Code.

1.4 Monitoring Requirements and Limitations

The permittee shall comply with the monitoring requirements and limitations specified below for the listed sampling point(s), and the following conditions.

Monitoring and Inspection Program: Within 90 days of the effective date of the permit, the permittee shall submit a proposed monitoring program, that includes information on the use of models, visual inspections, rainfall records, or other proposed methods to determine compliance with the effluent limitation specified in the General Discharge Limitations and Performance Standards subsection. The proposed monitoring program shall also address compliance with groundwater standards. Visual inspections shall be completed by the permittee or designee beginning on the effective date of the permit and in accordance with the following frequencies:

- Daily inspections for leakage of all water lines that potentially come into contact with pollutants or drain to storage or containment structures or runoff control systems, including drinking or cooling water lines.
- Weekly inspections to ensure proper operation of storm water diversions and devices that channel contaminated runoff to storage or containment structures.
- Weekly inspections of storage and containment structures (e.g., composting and leachate containment systems and manure storage structures). For liquid storage and containment facilities, the berms must be inspected for leakage, seepage, erosion, cracks and corrosion, rodent damage, excessive vegetation and other signs of structural weakness. In addition, the level of material in liquid storage and containment facilities shall be measured and recorded in feet or inches above or below the freeboard level. This measurement shall be based on a depth gauge, if available, or estimated if a depth gauge is not available. The permittee shall also record the date, time and estimated volume of any overflows of liquid storage or containment facilities.
- Quarterly inspections of outdoor animal lots, raw material storage areas, manure and process wastewater handling devices and practices.
- Periodic inspections of land application equipment for leaks. Frequency of land application equipment inspections shall be specified in the monitoring program.

Corrective Actions: Corrective actions shall be taken as soon as practicable to address any equipment, structure or system malfunction, failure or other problem identified as a result of monitoring or inspections. The permittee shall contact the Department if the permittee fails to or is unable to take corrective actions within 30 days of identifying a malfunction, failure or other problem.

Records: The permittee shall maintain records on site of all completed monitoring and inspections for Department review. In addition, the permittee shall maintain records associated with mortality management. Summaries of these records shall be submitted to the Department in accordance with requirements for Annual Reports in the Standard Requirements. Refer to the Schedules section and the Standard Requirements section for additional details. Any discharges to surface water shall be reported as outlined in ch. NR 205.07(1), Wis. Adm. Code.

1.4.1 Sampling Point 004 - Lagoon 1 - Home Farm; 007- Manure Digester - 1 - Home; 008- Manure Digester - 2 - Home; 019- Above Ground Tank - Home Farm ; 016- Manure Storage Unit - Kidd

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		ppm	2/Month	Grab	
Nitrogen, Available		lb/1000gal	2/Month	Calculated	
Phosphorus, Total		ppm	2/Month	Grab	
Phosphorus,		lb/1000gal	2/Month	Calculated	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Available					
Solids, Total		Percent	2/Month	Grab	

Reporting: Test results shall be submitted with the Annual Report. Sampling is only required when land applying.

Daily Log Requirements	
All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under Records Retention in the Standard Requirements section, and if requested, made available to the Department.	
Parameters	Units
Date of Application	Date
Field ID	Number/Name
Acres Applied	Number of Acres
Manure Source	Specify Storage Facility or Barn
Spreader Volume	Tons or Gallons
Number of Loads	Number
Soil Conditions	Dry, Wet, Frozen, Snow Covered
Temperature During Application	°F
Precipitation During Application	Describe Precipitation
Application Method	Surface Applied, Injected, Incorporated

Annual Report		
Submit an annual report that summarizes all landspreading activity and includes the lab analyses of the manure and other waste landspread, the T compliance worksheet for all fields, and the soil test frequency in the past four years. The Annual Report is due each year by the date specified in the Schedules section of this permit. Nitrogen and phosphorus from all sources including commercial fertilizers shall be included in the "Total Nitrogen" and "Total Phosphorus" sections of the annual report.		
Parameters	Units	Sample Type
Date of Application	Date	-
Field ID	Number/Name	-
Acres Applied	Number of Acres	-
Slope	Percent	-
Soil Test P Ave.	ppm	-
Manure Source	-	Composite

Annual Report		
Submit an annual report that summarizes all landspreading activity and includes the lab analyses of the manure and other waste landspread, the T compliance worksheet for all fields, and the soil test frequency in the past four years. The Annual Report is due each year by the date specified in the Schedules section of this permit. Nitrogen and phosphorus from all sources including commercial fertilizers shall be included in the "Total Nitrogen" and "Total Phosphorus" sections of the annual report.		
Parameters	Units	Sample Type
Current Crop	-	-
Crop Nitrogen Needs (per soil test)	Pounds/Acre	-
Crop P ₂ O ₅ Needs (per soil test)	Pounds/Acre	-
Manure Analysis: Available Nitrogen	Pounds/1000 Gallons	Calculated
Manure Analysis: Available P ₂ O ₅	Pounds/1000 Gallons	Calculated
Manure Application Rate	Gallons/Acre	-
Manure Applied: Nitrogen	Pounds/Acre	-
Manure Applied: P ₂ O ₅	Pounds/Acre	-
Previous Crop	-	-
Legume Nitrogen Credit	Pounds/Acre	-
Second Year Manure Credit	Pounds/Acre	-
Additional Fertilizer: Nitrogen	Pounds/Acre	-
Additional Fertilizer: P ₂ O ₅	Pounds/Acre	-
Total Nitrogen Applied	Pounds/Acre	-
Total P ₂ O ₅ Applied	Pounds/Acre	-
Soil Conditions	Dry, Wet, Frozen, Snow Covered	-
Application Method	Surface Applied, Injected, Incorporated	-
Banked	Yes/No	-
Field Restrictions	Per Nutrient Management Plan	-

1.4.2 Sampling Point 005 - Separated Solids - Home Farm; 006- Solid Manure - Home Farm; 009- Manure Storage - Kidd Farm; 010- Manure Storage - Schultz Farm; 011- Manure Storage - Hoffman Farm; 012- Manure Storage - Powers Farm

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		ppm	Quarterly	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Available		lbs/ton	Quarterly	Calculated	
Phosphorus, Total		ppm	Quarterly	Grab	
Phosphorus, Available		lbs/ton	Quarterly	Calculated	
Solids, Total		Percent	Quarterly	Grab	

Reporting: Test results shall be submitted with the Annual Report. Sampling is only required when land applying.

Daily Log Requirements	
All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under Records Retention in the Standard Requirements section, and if requested, made available to the Department.	
Parameters	Units
Date of Application	Date
Field ID	Number/Name
Acres Applied	Number of Acres
Manure Source	Specify Storage Facility or Barn
Spreader Volume	Tons or Gallons
Number of Loads	Number
Soil Conditions	Dry, Wet, Frozen, Snow Covered
Temperature During Application	°F
Precipitation During Application	Describe Precipitation
Application Method	Surface Applied, Injected, Incorporated

Annual Report		
Submit an annual report that summarizes all landspreading activity and includes the lab analyses of the manure and other waste landspread, the T compliance worksheet for all fields, and the soil test frequency in the past four years. The Annual Report is due each year by the date specified in the Schedules section of this permit. Nitrogen and phosphorus from all sources including commercial fertilizers shall be included in the "Total Nitrogen" and "Total Phosphorus" sections of the annual report.		
Parameters	Units	Sample Type
Date of Application	Date	-
Field ID	Number/Name	-
Acres Applied	Number of Acres	-
Slope	Percent	-

<p align="center">Annual Report</p> <p>Submit an annual report that summarizes all landspreading activity and includes the lab analyses of the manure and other waste landspread, the T compliance worksheet for all fields, and the soil test frequency in the past four years. The Annual Report is due each year by the date specified in the Schedules section of this permit. Nitrogen and phosphorus from all sources including commercial fertilizers shall be included in the "Total Nitrogen" and "Total Phosphorus" sections of the annual report.</p>		
Parameters	Units	Sample Type
Soil Test P Ave.	ppm	-
Manure Source	-	Composite
Current Crop	-	-
Crop Nitrogen Needs (per soil test)	Pounds/Acre	-
Crop P ₂ O ₅ Needs (per soil test)	Pounds/Acre	-
Manure Analysis: Available Nitrogen	Pounds/Ton	Calculated
Manure Analysis: Available P ₂ O ₅	Pounds/Ton	Calculated
Manure Application Rate	Tons/Acre	-
Manure Applied: Nitrogen	Pounds/Acre	-
Manure Applied: P ₂ O ₅	Pounds/Acre	-
Previous Crop	-	-
Legume Nitrogen Credit	Pounds/Acre	-
Second Year Manure Credit	Pounds/Acre	-
Additional Fertilizer: Nitrogen	Pounds/Acre	-
Additional Fertilizer: P ₂ O ₅	Pounds/Acre	-
Total Nitrogen Applied	Pounds/Acre	-
Total P ₂ O ₅ Applied	Pounds/Acre	-
Soil Conditions	Dry, Wet, Frozen, Snow Covered	-
Application Method	Surface Applied, Injected, Incorporated	-
Banked	Yes/No	-
Field Restrictions	Per Nutrient Management Plan	-

2 Land Application Requirements

2.1 Sampling Point(s)

The discharge(s) shall be limited to land application of the waste type(s) designated for the listed sampling point(s) on Department approved land spreading sites or by hauling to another facility.

Sampling Point Designation	
Sampling Point Number	Sampling Point Location, WasteType/Sample Contents and Treatment Description (as applicable)
001	Process wastewater and whey stored in an above-ground storage tank for land application. Some of the whey is fed to cattle and some will be directed to the digester. This outfall will be inactivated under the planned system and only reinstated if requested and approved by the Department. All whey and process wastewater will be included in the facilities Nutrient Management Plan and all limitations and requirements for manure and process wastewater will apply.

2.2 Monitoring Requirements and Limitations

The permittee shall comply with the following monitoring requirements and limitations.

2.2.1 Sampling Point (Outfall) 001 - Process WW - Storage Tank

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total Kjeldahl		mg/L	Monthly	Grab	
Chloride		mg/L	Monthly	Grab	
Flow Rate		gpd	Quarterly	Estimated	
BOD ₅ , Total		mg/L	Quarterly	Grab	

Daily Log – Monitoring Requirements and Limitations				
All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under “Records Retention” in the Standard Requirements section, and if requested, made available to the Department.				
Parameters	Limit	Units	Sample Frequency	Sample Type
DNR Site Number(s)	-	Number	Daily	Log
Acres Applied	-	Acres	Daily	Log
Frozen Site Maximum Daily Loading Volume	6,800	Gal/Acre/Day	Daily	Calculated
Unfrozen Site Maximum Daily Loading Volume	13,500	Gal/Acre/Day	Daily	Calculated

Daily Log – Monitoring Requirements and Limitations All discharge and monitoring activity shall be documented on log sheets. Originals of the log sheets shall be kept by the permittee as described under “Records Retention” in the Standard Requirements section, and if requested, made available to the Department.				
Parameters	Limit	Units	Sample Frequency	Sample Type
Unanalyzed Whey Application Rate	Year 1 = 27,150 Year 2 = 20,360 Year 3+ = 13,600	Gal/Acre/Year	Daily	Total Yearly
Weekly Loading Volume	See NR 214 - Tbl 3	Inches/Week	Weekly	Calculated

Annual Report – Monitoring Requirements and Limitations The Annual Report is due by January 31 st of each year for the previous calendar year.				
Parameters	Limit	Units	Reporting Frequency	Sample Type
DNR Site Number(s)	-	Number	-	-
Acres Land Applied	-	Acres	Annual	-
Total Volume Per Site	-	Gallons	Annual	Total Annual
Total Kjeldahl Nitrogen per Site	165, or alternate approved in writing	Pounds/Acre/Year	Annual	Calculated
Total Chloride per Site	340	Pounds/Acre per 2 Years	Annual	Calculated

2.2.1.1 Annual Site Nitrogen Loading

For details on nitrogen loading requirements, including approval of an alternate nitrogen pounds/acre/year site loading, see the “Nitrogen Requirements for Liquid Wastes, By-Product Solids and Sludges” paragraph in the Standard Requirements section of this permit.

2.2.1.2 Monthly Average Discharge Volume

The monthly average of the daily discharge volume shall be reported on the Characteristics Report Form 3400-49. Calculate the monthly average discharge volume by dividing the total amount discharged for the month by the total number of days in the month.

3 Schedules

3.1 Livestock Operations - Monitoring & Inspection Program

Required Action	Date Due
Proposed Monitoring Program: Consistent with the Monitoring Requirements and Limitations subsection, within 90 days of the effective date of this permit the permittee shall submit a proposed monitoring program that includes information on the use of models, visual inspections, rainfall records, or other proposed methods to determine compliance with the effluent limitation specified in the General Discharge Limitations and Performance Standards subsection. The proposed monitoring program shall also address compliance with groundwater standards.	01/31/2007

3.2 Manure Management Plan With Phosphorus Limitations

Required Action	Date Due
Management Plan Submittal: Submit a revised Manure Management Plan for approval that meets the conditions outlined in this permit (see conditions in Standard Requirements) and provides for application and utilization of manure and nutrients in a manner that does not cause or contribute to the non-attainment of surface water quality standards and groundwater standards. Once the plan is approved, all landspreading of manure shall be completed in accordance with the Manure Management Plan and in accordance with the land application conditions of this permit.	12/01/2006
Phosphorus Strategy: An amendment to the Manure Management Plan shall be submitted to the Department for approval that outlines practices to be implemented on a case-by-case basis to limit potential phosphorus transport and delivery from land applied manure. Restrictions placed on landspreading activities shall control phosphorus loadings in a manner that will not alter the background quality of an outstanding or exceptional resource water, or will not further the impairment of a Clean Water Act Section 303(d) listed waterbody. The permittee shall work with Department staff to clearly define spreading areas of concern. The landspreading restrictions shall be based on the best information available to the Department and shall take into account agronomic loading rates, existing soil phosphorus levels, buffers, crop rotations, and other relevant factors.	12/01/2006
Phosphorus Strategy Implementation: The permittee shall implement the phosphorus strategy for landspreading through the amended Management Plan.	12/01/2006
Management Plan Annual Update #1: Submit an Annual Update to the Manure Management Plan at least 30 days before the start of each cropping season. Note: In addition to Annual Updates, submit Management Plan Amendments to the Department for written approval prior to implementation of any changes to manure management practices, in accordance with the Manure Management Plan Amendments and Annual Updates subsection in Standard Requirements.	07/01/2007
Management Plan Annual Update #2: Submit an Annual Update to the Manure Management Plan.	07/01/2008
Management Plan Annual Update #3: Submit an Annual Update to the Manure Management Plan.	07/01/2009
Management Plan Annual Update #4: Submit an Annual Update to the Manure Management Plan.	07/01/2010
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Manure Management Plan until permit reissuance has been completed.	07/01/2011

3.3 Annual Reports

Submit Annual Reports by September 1st of each year in accordance with the Annual Reports subsection in Standard Requirements.

Required Action	Date Due
Submit Annual Report #1:	09/01/2007
Submit Annual Report #2:	09/01/2008
Submit Annual Report #3:	09/01/2009
Submit Annual Report #4:	09/01/2010
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	09/01/2011

3.4 Pasture Management Plan

Submit and Implement the Pasture Management Plan after Approval

Required Action	Date Due
Submit Pasture Management Plan: Submit a Pasture Management Plan for all non-feedlot areas where animals are pastured for Department review and approval. The plan must include information detailing the pasture boundaries, density of livestock, timeframes, vegetative type, percent cover, and other management practices to insure proper operation of the area as a pasture. Once approved, implement the Pasture Management Plan.	12/01/2006

3.5 Manure Storage Facility - Engineering Evaluation - Home Farm

Required Action	Date Due
Retain Expert: Retain a qualified expert to complete an engineering evaluation for the under the floor manure storage facility and the manure transfer systems at the Home Farm and report the name of the expert to the Department.	12/01/2006
Written Report: Submit a written report evaluating the existing manure storage facility's ability to meet the intent of the performance criteria and specifications outlined in USDA Natural Resources Conservation Service's (NRCS) Technical Guide, Section IV, Standard 313 and 634 and the storage facility's ability to permanently meet the conditions of the General Discharge Limitations and Performance Standards subsection. (See Standard Requirements for report details.)	06/01/2007
Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 108, Wis. Adm. Code, to permanently correct any adverse manure storage conditions.	08/01/2007
Corrections and Post Construction Documentation: Complete construction on the manure storage facility that permanently corrects any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	12/31/2007

3.6 Runoff Control System - Engineering Evaluation - Home Farm

Required Action	Date Due
Complete Engineering Evaluation: Retain a qualified expert to complete an engineering evaluation of the feedlot runoff control system for each of the feedlots at the Home Farm and report the name of	12/01/2006

the expert to the Department.	
Written Description of Existing System: Submit a written description of the existing runoff control system and its adequacy to permanently meet the conditions found in the General Discharge Limitations and Performance Standards subsection. (See Standard Requirements for report details.)	06/01/2007
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse runoff control conditions in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 108, Wis. Adm. Code.	08/01/2007
Corrections and Post Construction Documentation: Complete construction of runoff controls that permanently correct any adverse runoff control conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	12/31/2007

3.7 Runoff Control System - Installation - Hoffman Farm

Required Action	Date Due
Plans and Specifications: Submit plans and specifications for a permanent runoff control system for the feedlots at the Hoffman Farm for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 108, Wis. Adm. Code. See Standard Requirements for plan content information.	06/01/2007
Complete Installation: Complete construction of runoff control system. System shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	12/31/2007

3.8 Runoff Control System - Installation - Powers Farm - Concrete Lot

Required Action	Date Due
Plans and Specifications: Submit plans and specifications for a permanent runoff control system for the concrete feedlot at the Powers Farm for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 108, Wis. Adm. Code. See Standard Requirements for plan content information.	06/01/2007
Complete Installation: Complete construction of runoff control system. System shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	12/31/2007

3.9 Runoff Control System - Abandonment - Powers Earthen Lot

Required Action	Date Due
Abandonment Plan: Submit an abandonment plan for the Earthen Lot at the Powers Farm to the Department for approval outlining the proposed method of abandonment.	06/01/2007
Complete Abandonment: Complete abandonment as approved by the Department.	12/21/2007

3.10 Runoff Control System - Abandonment - Kidd Farm Earthen Lot

Required Action	Date Due
Abandonment Plan: Submit an abandonment plan for the earthen feedlot at the Kidd Farm to the Department for approval outlining the proposed method of abandonment.	06/01/2007
Complete Abandonment: Complete abandonment as approved by the Department.	12/31/2007

3.11 Runoff Control System - Abandonment - Kidd Farm Concrete Lot

Required Action	Date Due
Abandonment Plan: Submit an abandonment plan for the concrete feedlot at the Kidd Farm to the Department for approval outlining the proposed method of abandonment.	06/01/2008
Complete Abandonment: Complete abandonment as approved by the Department.	12/31/2008

3.12 Manure Storage Facility - Engineering Evaluation - Kidd Farm

Required Action	Date Due
Retain Expert: Retain a qualified expert to complete an engineering evaluation for the 300,000 gallon inground manure storage facility at the Kidd Farm and report the name of the expert to the Department.	12/01/2006
Written Report: Submit a written report evaluating the existing manure storage facility's ability to meet the intent of the performance criteria and specifications outlined in USDA Natural Resources Conservation Service's (NRCS) Technical Guide, Section IV, Standard 313 and the storage facility's ability to permanently meet the conditions of the General Discharge Limitations and Performance Standards subsection. (See Standard Requirements for report details.)	06/01/2007
Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 108, Wis. Adm. Code, to permanently correct any adverse manure storage conditions.	08/01/2007
Corrections and Post Construction Documentation: Complete construction on the manure storage facility that permanently corrects any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	12/31/2007

3.13 Runoff Control System - Abandonment - Schultz Farm

Required Action	Date Due
Abandonment Plan: Submit an abandonment plan for both the earthen and concrete feedlots at the Schultz Farm to the Department for approval outlining the proposed method of abandonment.	06/01/2008
Complete Abandonment: Complete abandonment as approved by the Department.	12/31/2008

3.14 Composting System Installation

Required Action	Date Due
Plans and Specifications: Ninety days prior to use, submit plans and specifications for any new composting system for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 108, Wis. Adm. Code. See Standard Requirements for plan content details.	

3.15 Digester Influent/Effluent Characterization

Prior to introducing any influent additives to the methane digester (other than manure), the permittee shall gain written Department approval. See the Standard Requirements section for additional digester requirements that may apply.

Required Action	Date Due
Description of Digester Influent/Effluent: Ninety days prior to the introduction of any influent other than manure to the methane digester, the permittee shall submit a comprehensive description of the proposed influent and resulting effluent. At a minimum, the influent description shall include: amount of influent to be introduced (gallons/day), percentage of total digester volume comprised by each additive, and full chemical characterization. The effluent description shall include a chemical characterization. Proposed start and stop dates for each individual influent shall also be included.	
Preliminary Digester Management Plan Approval: Ninety days prior to the introduction of any influent other than manure to the methane digester, the permittee shall submit a written request for approval of the Preliminary Management Plan for land application of the resulting effluent. The request shall specify what percent of the total digester volume is comprised of each additive other than manure. Included shall be a discussion on the beneficial use of the effluent as a fertilizer, soil conditioner or other soil additive and proposed application rates and sites. Based on this information, the Department will determine which regulations apply and will notify the permittee in writing if a Management Plan Amendment or permit modification is required.	
Management Plan Amendment: If a Management Plan Amendment is required, the permittee shall submit the amended plan thirty days prior to the introduction of a new influent. The amended plan must fully incorporate the appropriate provisions of the applicable chapter(s) in Wis. Adm. Code, and all applicable subsections of this permit. Prior written approval from the Department is required prior to landspreading the resulting effluent.	

3.16 Submit Permit Reissuance Application

Required Action	Date Due
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	04/01/2011

4 Standard Requirements

NR 205, Wisconsin Administrative Code (Conditions for Industrial Dischargers): The conditions in ss. NR 205.07(1) and NR 205.07(3), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirement section of this permit can be found in ss. NR 205.07(1) and NR 205.07(3).

4.1 Reporting and Monitoring Requirements for Industrial Discharges

4.1.1 Sampling and Testing Procedures

Sampling and laboratory testing procedures shall be performed in accordance with Chapters NR 218 and NR 219, Wis. Adm. Code and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code. Groundwater sample collection and analysis shall be performed in accordance with ch. NR 140, Wis. Adm. Code. The analytical methodologies used shall enable the laboratory to quantitate all substances for which monitoring is required at levels below the effluent limitation. If the required level cannot be met by any of the methods available in NR 219, Wis. Adm. Code, then the method with the lowest limit of detection shall be selected. Additional test procedures may be specified in this permit.

4.1.2 Recording of Results

The permittee shall maintain records which provide the following information for each effluent measurement or sample taken:

- the date, exact place, method and time of sampling or measurements;
- the individual who performed the sampling or measurements;
- the date the analysis was performed;
- the individual who performed the analysis;
- the analytical techniques or methods used; and
- the results of the analysis.

4.1.3 Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit for a period of at least 3 years from the date of the sample, measurement, report or application, except for sludge management forms and records, which shall be kept for a period of at least 5 years.

4.1.4 Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or correct information to the Department.

4.2 System Operating Requirements for Industrial Discharges

4.2.1 Noncompliance Notification

- The permittee shall report the following types of noncompliance by a telephone call to the Department's regional office within 24 hours after becoming aware of the noncompliance;

- any noncompliance which may endanger health or the environment;
 - any violation of an effluent limitation resulting from an unanticipated bypass;
 - any violation of an effluent limitation resulting from an upset; and
 - any violation of a maximum discharge limitation for any of the pollutants listed by the Department in the permit.
- A written report describing the noncompliance shall also be submitted to the Department's regional office within 5 days after the permittee becomes aware of the noncompliance. On a case-by-case basis, the Department may waive the requirement for submittal of a written report within 5 days and instruct the permittee to submit the written report with the next regularly scheduled monitoring report. In either case, the written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and if the noncompliance has not been corrected, the length of time it is expected to continue.
 - The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

NOTE: Section 292.11(2)(a), Wisconsin Statutes, requires any person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance to notify the Department of Natural Resources **immediately** of any discharge not authorized by the permit. The discharge of a hazardous substance that is not authorized by this permit or that violates this permit may be a hazardous substance spill. To report a hazardous substance spill, call DNR's 24-hour HOTLINE at **1-800-943-0003**.

4.2.2 Spill Reporting

The permittee shall notify the Department in accordance with ch. NR 706 (formerly NR 158), Wis. Adm. Code, in the event that a spill or accidental release of any material or substance results in the discharge of pollutants to the waters of the state at a rate or concentration greater than the effluent limitations established in this permit, or the spill or accidental release of the material is unregulated in this permit, unless the spill or release of pollutants has been reported to the Department in accordance with s. NR 205.07 (1)(s), Wis. Adm. Code.

4.2.3 Planned Changes

In accordance with ss. 283.31(4)(b) and 283.59, Stats., the permittee shall report to the Department any facility expansion, production increase or process modifications which will result in new, different or increased discharges of pollutants. The report shall either be a new permit application, or if the new discharge will not violate the effluent limitations of this permit, a written notice of the new, different or increased discharge. The notice shall contain a description of the new activities, an estimate of the new, different or increased discharge of pollutants and a description of the effect of the new or increased discharge on existing waste treatment facilities. Following receipt of this report, the Department may modify this permit to specify and limit any pollutants not previously regulated in the permit.

4.2.4 Duty to Halt or Reduce Activity

Upon failure or impairment of treatment facility operation, the permittee shall, to the extent necessary to maintain compliance with its permit, curtail production or wastewater discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

4.3 Land Application Requirements for Industrial Discharges

4.3.1 Land Application Characteristic Report

The analytical results from testing of liquid wastes, by-product solids and sludges that are land applied shall be reported annually on the Characteristic Form 3400-49. The report shall be submitted by January 31 following each year of analysis.

The permittee shall use the following convention when reporting sludge monitoring results: Pollutant concentrations less than the limit of detection shall be reported as < (less than) the value of the limit of detection. For example, if a substance is not detected at a detection limit of 1.0 mg/kg, report the pollutant concentration as < 1.0 mg/kg .

All sludge results shall be reported on a dry weight basis.

4.3.2 Land Application Report

The annual totals for the land application loadings of liquid wastes, by-product solids and sludges to field spreading sites shall be submitted on the Land Application Report Form 3400-55 by January 31, following each year waste is land applied.

4.3.3 Other Methods of Disposal or Distribution Report

The permittee shall submit Report Form 3400-52 by January 31, following each year waste is hauled to another facility, landfilled, incinerated, or stored in a manure pit.

4.3.4 Land Application Site Approval

The permittee is authorized to landspread permitted liquid wastes, by-product solids and sludges on sites approved in writing by the Department in accordance with ss. NR 214.17(2) and 214.18(2), Wis. Adm. Code. Any site use restrictions or granting of case-by-case exceptions shall be identified in the approval letter. If the permittee wishes to have approval for additional sites, application shall be made using Land Application Site Request Form 3400-053. Complete information shall be submitted about each site, including location maps and soil maps, any soil analyses results and other information showing that the site complies with all application requirements and permit conditions. Spreading on a site may commence upon receipt of Department approval. If an existing spreading site is found by the Department to be environmentally unacceptable, a written notice will be issued to withdraw approval of that site.

4.3.5 Operating Requirements/Management Plan

All land application sites used for treatment of liquid wastes, by-product solids and sludges shall be operated in accordance with a Department approved management plan. The management plan shall be consistent with the requirements of this permit, ss. NR 214.17 (3) and (6), and NR 214.18 (3) and (6), Wis. Adm. Code. If operational changes are needed, the land application management plan shall be amended by submitting a written request to the Department for approval. A land application management plan shall be submitted for approval at least 60 days prior to land application.

4.3.6 Chloride Requirements for Liquid Wastes and By-Product Solids

The total pounds of chloride applied shall be limited to 340 pounds per acre per 2 year period. Calculate the chloride loading as follows:

$$\text{Wet Weight Solids: } \frac{\text{lbs of solids} \times \% \text{solids} \times \% \text{chloride}}{\text{acres land applied} \times 100 \times 100} = \text{lbs chloride/acre}$$

$$\text{Liquid: } \frac{\text{mg/L chloride} \times (\text{millions of gallons}) \times 8.34}{\text{acres land applied}} = \text{lbs chloride/acre}$$

4.3.7 Nitrogen Requirements for Liquid Wastes and By-Product Solids and Sludges

NR 214.17(4) and NR 214.18(4) Wis. Adm. Code specify that the total pounds of nitrogen land applied per acre per year shall be limited to the nitrogen needs of the cover crop minus any other nitrogen added to the land application site, including fertilizer or manure. Nitrogen applied can be calculated on the basis of plant available nitrogen, as long as the release of nitrogen from the organic material is credited to future years. This permit requires that the Total Kjeldahl Nitrogen calendar year application amount shall not exceed 165 pounds per acre per year, except when alternate numerical nitrogen loading limits (consistent with the above sections of NR 214) are approved in writing via the Department's land application management plan approval. Calculate nitrogen loading as follows ("TKN" represents "Total Kjeldahl Nitrogen"):

$$\text{Wet Weight Solids and Sludges: } \frac{\text{lbs of solids} \times \% \text{solids} \times \% \text{TKN}}{\text{acres land applied} \times 100 \times 100} = \text{lbs TKN/acre}$$

$$\text{Liquid: } \frac{\text{mg/L TKN} \times (\text{millions of gallons}) \times 8.34}{\text{acres land applied}} = \text{lbs TKN/acre}$$

4.3.8 Ponding

The volume of liquid wastes land applied shall be limited to prevent ponding, except for temporary conditions following rainfall events. If ponding occurs all land application shall cease immediately. The permittee shall land apply only the liquid wastes that are permitted.

4.3.9 Runoff

The volume of liquid wastes land applied shall be limited to prevent runoff. If runoff occurs all land application shall cease immediately. The permittee shall land apply only the liquid wastes that are permitted.

4.3.10 Soil Incorporation Requirements

- Liquid Wastewater Requirements: The Department may require that liquid wastewater be incorporated or injected into the soil on specific land application sites when necessary to prevent surface runoff or objectionable odors. Requirements and procedures for injection or incorporation of liquid wastewater, when such injection or incorporation is necessary, shall be specified in the management plan or in specific site applications, subject to Department approval. The permittee shall comply with the requirements in the Department approved management plan, specific site-approval requirements and the terms and conditions of this permit.

4.3.11 Additional Requirements from ch. NR 214, Wis. Adm. Code

The requirements of s. NR 214.17 (4)(c) [pathogen prohibition for human consumption crop fields], (4)(d)1 [no adverse soil effects], (4)(d)10 [allowable whey spreading rates], and (4)(e)1-3 [by-product solids spreading within agricultural practices and not cause contamination] for landspreading of liquid wastes and by product solids and s. NR 214.18 (4)(b),(d)-(h) [application, nutrient, pH, metals, and PCB limitations] for sludge spreading systems are included by reference in this permit. The permittee shall comply with these requirements.

4.3.12 Winter Spreading Restrictions for Industrial Liquid Wastewater

Industrial liquid wastewater shall not be applied on frozen or snow covered fields with slopes greater than 2 %

4.4 General Conditions

NR 205, Wisconsin Administrative Code: The conditions in s. NR 205.07(1), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements. Some of these requirements are outlined in the Standard Requirements section of this permit. Requirements not specifically outlined in the Standard Requirement section of this permit can be found in s. NR 205.07(1).

4.4.1 Duty to comply

The permittee shall comply with all conditions of the permit. Any permit noncompliance is a violation of the permit and is grounds for enforcement action, permit revocation or modification, or denial of a permit reissuance application.

4.4.2 Permit Actions

As provided in s. 283.53, Stats., after notice and opportunity for a hearing the permit may be modified or revoked and reissued for cause. If the permittee files a request for a permit modification, revocation or reissuance, or a notification of planned changes or anticipated noncompliance, this action by itself does not relieve the permittee of any permit condition.

4.4.3 Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. The permit does not authorize any injury or damage to private property or any invasion of personal rights, or any infringement of federal, state or local laws or regulations.

4.4.4 Schedules

Reports of compliance or noncompliance with interim and final requirements contained in any schedule of the permit shall be submitted in writing within 14 days after the schedule date, except that progress reports shall be submitted in writing on or before each schedule date for each report. Any report of noncompliance shall include the cause of noncompliance, a description of remedial actions taken and an estimate of the effect of the noncompliance on the permittee's ability to meet the remaining schedule dates.

4.4.5 Inspection and Entry

The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to:

- enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are required under the conditions of the permit;
- have access to and copy, at reasonable times, any records that are required under the conditions of the permit;
- inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under the permit; and
- sample or monitor at reasonable times, for the purposes of assuring permit compliance, any substances or parameters at any location.

4.4.6 Transfers

A permit is not transferable to any person except after notice to the Department. In the event of a transfer of control of a permitted facility, the prospective owner or operator shall file a new permit application and shall file a stipulation of permit acceptance with the Department WPDES permit section. The Department may require modification or

revocation and reissuance of the permit to change the name of the permittee and to reflect the requirements of ch. 283, Stats.

4.4.7 Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any adverse impact on the waters of the state resulting from noncompliance with the permit.

4.4.8 Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking or reissuing the permit or to determine compliance with the permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by the permittee.

4.4.9 Proper Operation and Maintenance

- The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit.
- For all liquid containment or storage facilities, the permittee shall maintain adequate freeboard at all times to avoid overtopping. Adequate freeboard is defined as follows:

(a) At least 12 inches of freeboard, unless greater freeboard is required under par. (b).

(b) The permittee shall calculate the amount of freeboard necessary to contain direct precipitation and runoff from a 25-year, 24-hour storm. Information on how this freeboard was calculated shall be submitted for Department approval as part of the Manure Management Plan. If freeboard calculated under (b) is greater than 12 inches, freeboard calculated under (b) shall be maintained and considered the required freeboard upon approval by the Department.

The permittee shall clearly mark the appropriate freeboard level on containment and storage facilities. Failure to maintain adequate freeboard at all times is a permit violation and shall be reported to the Department in accordance with the timeframes specified in the Noncompliance-24 Hour Reporting subsection in the Standard Requirements. In addition, the permittee shall promptly remove stored materials from the storage or containment facility to achieve the required freeboard if the materials can be landspread in compliance with the permit and Manure Management Plan.

- Disposal of chemicals in containment or storage structures, without prior Department approval, is prohibited.
- In accordance with the procedures and frequency outlined in the permittee's approved Manure Management Plan, landspreading equipment shall be periodically calibrated to ensure accurate application rates for manure and other process wastewaters.

4.4.10 Manure Storage Facility Closure and Abandonment

If the operator plans to close or abandon manure storage facilities, the facilities shall be closed or abandoned in accordance with NRCS Standard 360 (June 2001). A closure or abandonment plan shall be submitted to the Department and prior written approval must be granted before closing the facility. Closure or abandonment of a manure storage facility shall occur when manure has not been added or removed for a period of 24 months, unless the owner or operator can provide information to the Department that the structure is designed to store manure for a longer period of time or that the storage structure will be utilized within a specific period of time.

4.4.11 Reports and Submittal Certification

Signature(s) on reports required by this permit shall certify to the best of the permittee's knowledge the reports to be true, complete and accurate. All reports required by this permit shall be signed:

- for a corporation by a principal executive officer of at least the level of Vice President or his duly authorized representative having overall responsibility for the operation of the facility of which this permit issued,
- for a partnership by a general partner, and
- for a sole proprietorship by the proprietor.

4.4.12 Duty to Maintain Permit Coverage

No later than 180 days before the permit expiration date specified on this permit, the permittee shall submit an application to continue permit coverage except if:

- The permittee has ceased operation or is no longer defined as a Concentrated Animal Feeding Operation under ch. NR 243, Wis. Adm. Code, and
- The permittee has demonstrated to the Department that there is no remaining potential for a discharge of manure or process wastewater to navigable waters.

4.5 Livestock Operations Requirements

4.5.1 Manure Management Plan Content

A written Manure Management Plan shall be submitted to the Department for approval that provides for utilization of manure and process wastewater in an environmentally acceptable manner. For purposes of the Manure Management Plan, all references to manure include process wastewater. The plan shall address all the requirements listed in this permit and be developed by a certified crop consultant or other qualified individual. Additionally, the plan shall include:

4.5.1.1 Aerial Photographs

Aerial photographs of the proposed fields containing:

- boundaries and identification numbers for all crop fields, pastures and manure spreading sites;
- identification of fields or portions of fields with manure spreading restrictions including locations of waterways, lakes, ponds, marshes, water supply wells; and
- acreage and any other pertinent field information.

4.5.1.2 Plat Maps and Soil Maps

- plat maps of the proposed fields locating roads and identifying landowner's names; and
- soil survey maps of the proposed fields (including soil types and slopes).

4.5.1.3 Annual Manure Measurements

- the total amount of manure produced on an annual basis; and
- the total amount of manure to be landspread on an annual basis.

4.5.1.4 Manure Storage Information and Discharge/Disposal Methods

- the available manure storage capacity (gallons and total number of days);
- the amount of required freeboard (12 inches or other amount as specified in the Proper Operation and Maintenance subsection of the Standard Requirements, whichever is greater)
- the frequency of application per twelve month period;
- the normal method of manure application and incorporation;

- other methods (besides landspreading) utilized by the permittee for the disposal of manure,
- method and frequency of calibration for land application equipment, and
- method of disposal of animal carcasses.

4.5.1.5 Detailed Landspreading Information

- a description of the waste being landspread (examples: manure, bedding, wash waters, runoff water, whey, municipal sludge);
- a crop history identifying the previous season's crops and future cropping plans for each field where manure is to be spread, including estimated nutrient uptake;
- an estimate of the total amount of nutrients from all sources of manure, on an annual basis;
- proposed nutrient application rates for each field where manure is to be spread, based on laboratory analysis of manure samples;
- results of laboratory analysis of soil samples;
- method of analysis for manure and soil samples; and
- NRCS form WI-CPA-15, or equivalent, documenting that field is being cropped to meet tolerable soil loss ("T").

4.5.1.6 Landspreading Site Criteria

- criteria to be used for verifying that new/proposed landspreading sites meet locational requirements of the permit.

4.5.1.7 Winter Landspreading

A winter landspreading section containing:

- a list of lowest risk fields available for spreading, to be used when applying solid manure in the winter. Low risk fields are fields that have a relatively flat gradient, are far removed from surface waters and have few conduits (ditches, channels) for manure to run off the intended site;
- loading rates, and
- practices to be used when winter landspreading manure.

4.5.1.8 Emergency Landspreading

An emergency landspreading section containing:

- a reference to the low risk fields identified in the winter spreading section, to be used when the emergency landspreading of liquid manure on frozen and/or snow covered ground is needed;
- a list of alternatives to be used prior to landspreading (storage, processing);
- a maximum loading rate of 3500 gallons per acre, and
- practices to be used to safely landspread liquid manure on frozen and/or snow covered ground.

4.5.1.9 Composting Information

- compost management details including the amount and type of material composted, and leachate collection and disposal methods.

4.5.1.10 Example Worksheets, Daily Log Sheets and Annual Landspreading Reports

Example worksheets outlining the process in determining appropriate spreading rates for landspreading sites, including:

- a crop history identifying the previous season's crops and future cropping plans for each field where manure, litter, sludges and litter/compost leachate is to be spread, including estimated nutrient uptake;
- proposed nutrient application rates for each field where manure, litter, sludges and litter/compost leachate is to be spread, based on laboratory analysis of manure, litter, sludges and litter/compost leachate samples;
- example copies of the daily log sheets; and
- example copies of annual landspreading report forms.

4.5.1.11 Milkhouse Wastewater Information

- milkhouse wastewater disposal methods.

4.5.2 Scheduled Permit Requirements (EXISTING/EXPANDING SOURCES ONLY)

The requirements in this section shall be followed and become effective on: December 31, 2006, or according to written Department notification of promulgated revisions to ch. NR 243, Wis. Adm. Code; whichever date is earlier. By the earlier date, the permittee shall submit an amendment to their Manure Management Plan to the Department and make other operational changes that are consistent with the requirements in this section and the promulgated revisions to ch. NR 243.

- Manure or other process wastewaters may not be applied within 100 feet of down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads or other conduits to surface waters. In lieu of this 100 foot setback, the permittee, upon approval by the department, may abide by either of the following restrictions (subpars. 1. or 2.) for land application activities:
 1. A 35 foot wide vegetated buffer from down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads or other conduits to surface waters may be established on fields. Manure and process wastewaters may not be applied in the 35 foot vegetated buffer area, or
 2. Implement alternative conservation practices that are the equivalent of the 100 foot setback and are consistent with the requirements of ch. NR 243.
- In addition, in accordance with revisions to ch. NR 243, the permittee shall:
 - Address additional requirements for timing of application of manure and other process wastewaters in the plan.
 - Address additional requirements for adequate storage of manure and other process wastewaters in the plan.
 - Monitor and record weather conditions during land application activities.
 - Analyze soil, manure and wastewater using Department approved procedures and methods.
 - For land application activities, assess and minimize nitrogen and phosphorus transport to navigable waters in the plan.

4.5.3 Manure Management Plan Approvals

The Department reserves the right to review the Manure Management Plan on an annual basis for application rates and cover crop nutrient removal rates, as well as the timing and methods of application. If the Department determines that a landspreading site is no longer acceptable, the permittee shall modify the Manure Management Plan to remove the site from the plan. In addition, if the Department determines application rates need to be adjusted for individual

fields, the permittee shall modify the Manure Management Plan. All Department initiated modifications shall be completed by the permittee within 3 months of written notification from the Department.

4.5.4 Manure Management Plan Amendments and Annual Updates

Amendments: Proposed changes to manure management activities shall be submitted to the Department in writing for approval prior to implementation, as an Amendment to the Manure Management Plan. Changes requiring a plan amendment include, but are not limited to, application rates, new spreading sites, changes in the number of livestock, changes in manure storage procedures, or change in the type of manure spreading equipment. In addition, all approved amendments in a given year shall be included in the Annual Update.

Annual Updates: The Manure Management Plan shall be updated annually to reflect changes over the previous year (including incorporation of the previous year's amendments and new soil test results) and to record projected changes for the upcoming year. Annual Updates are due at least 30 days prior to the start of each cropping season.

4.5.5 Spreading Sites Submittals

The permittee shall submit written requests for approval for all landspreading sites not found in the approved management plan. The permittee shall obtain written Department approval prior to use of the site for landspreading. The following items shall be included in the request for site approval:

- an aerial photograph and plat map locating the spreading site,
- an unique site identification number,
- criteria used to verify the site meets locational requirements of the permit,
- a completed worksheet outlining the process in determining appropriate spreading rates for each additional site,
- completed NRCS form WI-CPA-15 demonstrating that the field(s) in question meet tolerable soil loss rate,
- maps that show where land application is prohibited or restricted as indicated in the Aerial Photograph subsection of the Manure Management Plan Content section,
- nutrient budget information demonstrating that nutrients will not be over-applied, and
- soil samples if available for one-time applications. If permittee wishes to use the site for subsequent applications, soil samples shall be submitted prior to additional landspreading.

4.5.6 Manure Spreading Prohibitions

Manure shall not be spread:

- in a waterway, terrace channel or any areas where there may be a concentration of runoff; or
- on fields with soils less than 10 inches thick over fractured bedrock.
- on actively melting snow
- on fields that have slopes greater than 12%, unless injected or incorporated immediately
- on highly permeable soils, unless approved in the Manure Management Plan

4.5.7 Incorporation Within 48 Hours

Manure shall not be applied under the following conditions unless injected or incorporated within 48 hours:

- within the 10 year floodplain or within 200 feet of streams, rivers or lakes, whichever is greater;
- within 200 feet upgradient of sinkholes, cracked bedrock or wells; or
- within 300 feet of open tile intakes.

4.5.8 Frozen Ground

Manure shall not be applied on frozen or snow covered ground in the following areas:

- within the 10 year floodplain or within 200 feet of streams, rivers or lakes, whichever is greater;
- within 200 feet upgradient of sinkholes, cracked bedrock or wells;
- on fields with shallow soils that are 10 to 20 inches thick over fractured bedrock; or
- on slopes greater than 6%, (variances are available for stripped cropped land, prior approval needed).

Liquid manure (solids content of 16% or less) shall not be applied on frozen or snow covered ground unless:

- following approved emergency spreading conditions and procedures.
- proper notification is made following approved emergency procedures.

4.5.9 Field Spreading of Manure

For fields receiving manure:

- soil sampling shall occur at least every four years (analyzed by an approved laboratory);
- a field by field nutrient budget shall be developed, consistent with University of Wisconsin - Extension Service recommendations;
- necessary conservation practices shall be applied to the land so that the soil loss tolerance will not be exceeded;
- the amount of manure applied to the soil on an annual basis shall not exceed the nitrogen requirements of the crops to be grown; and
- a complete analysis of nutrients, and appropriate chemicals and heavy metals shall be made when also applying municipal and industrial wastes.

4.5.10 Non-Cropland Applications

Manure may be applied to non-cropland if pre-approval in writing is issued by the Department. Considerations for approval may include acceptable application timing, amounts and methods.

4.5.11 Surface Applied Manure Prohibitions

Surface applied manures shall not:

- run off the intended site at any time.
- pond on the intended site at any time.

4.5.12 Mortality Management

Animal carcasses may not be disposed of in a manner that results in a discharge of pollutants to navigable waters or contributes to non-attainment of groundwater standards. Animal carcasses may not be disposed of directly into waters of the state. In addition, carcasses may not be disposed of in liquid containment or storage facilities not specifically approved by the Department to contain carcasses.

[NOTE: The permittee should be aware that there are additional restrictions on the disposal of animal carcasses in ch. 95, Stats., and ATPC 3, Wis. Adm. Code. Furthermore, there may be local regulations regarding disposal of carcasses. If a carcass is disposed of off-site, the disposal may be subject to the requirements in ch. NR 502.12 or 518, Wis. Adm. Code]

4.5.13 Plans and Specifications

Plans and specifications for new or upgraded storage facilities or for new or upgraded runoff control systems shall be submitted for approval in accordance with ch. 281.41, Stats., and ch. NR 108, Wis. Adm. Code. Post construction documentation for these projects shall be submitted within 60 days of completion of the project, or as otherwise specified by the Department.

4.5.14 Existing Manure Storage Facilities Evaluation

The following information shall be included in the written report evaluating all existing manure storage facilities:

- the adequacy of each facility's linings to prevent exfiltration of manure contaminants to groundwater, and the facility's ability to permanently meet the conditions in the General Discharge Limitations and Performance Standards subsection;
- the proximity of bedrock and the water table to the floors of the facility(s);
- scaled drawings showing the locations of each storage unit, any surface water, water supply wells, property boundaries, and other pertinent information;
- any post construction documentation available, including the date and materials of construction; and
- each storage facility's ability to meet the intent of the performance criteria and specifications outlined in USDA NRCS Standard No. 313, Waste Storage Facility contained in Section IV of the Wisconsin Field Office Technical Guide.

4.5.15 Existing Runoff Control System(s) Evaluation

The following information shall be included in the written report evaluating the existing runoff control system(s):

- the adequacy of the system(s) to permanently meet the conditions in the General Discharge Limitations and Performance Standards subsection;
- scaled drawings showing the locations of the runoff control system, any surface water, water supply wells, property boundaries, and other pertinent information;
- a full description of each system's components, including any reference to practices specified in the USDA Natural Resources Conservation Service, Technical Guide, Section IV; and
- any post construction documentation available, including the date and materials of construction.

4.5.16 Manure Storage Facility, Composting and Compost Leachate Containment Systems - Installation Plan Requirements

New construction of manure storage/composting facilities shall be in accordance with USDA Natural Resources Conservation (NRCS) Standard No. 313, Waste Storage Facility from Section IV of the Wisconsin Field Office Technical Guide and any local zoning ordinances, if applicable. Exemptions to the design criteria may be given on a case-by-case basis. Prior written approval is required. The following (minimum) information shall be included in the plans and specifications submitted for the new construction of a manure storage facility(s) or composting system(s) (three complete copies are required):

- the adequacy of each facility's proposed linings to prevent exfiltration of manure and other contaminants to groundwater and the facility's ability to permanently meet the conditions in the General Discharge Limitations and Performance Standards subsection;
- the proximity of bedrock and the water table to the proposed elevation of each facility's floors verified through on-site soil test borings or pits;
- scaled drawings showing the locations of each proposed storage unit, any surface water, water supply wells, property boundaries, and other pertinent information;

- details concerning the proposed materials of construction;
- relevant engineering calculations; and
- each proposed storage facility's ability to meet the intent of the performance criteria and specifications outlined in NRCS Standard No. 313, Waste Storage Facility contained in the Technical Guide.

4.5.17 Runoff Control Systems - Installation Plan Requirements

New construction of runoff control systems shall be in accordance with NRCS Standards, from the Wisconsin Field Office Technical Guide and any local zoning ordinances, if applicable. Exemptions to the design criteria may be given on a case-by-case basis. Prior written approval is required. The following (minimum) information shall be included in the plans and specifications submitted for the new construction of a runoff control system(s) (three complete copies are required):

- the adequacy of each proposed system to permanently meet the conditions in the General Discharge Limitations and Performance Standards subsection;
- the proximity of bedrock and the water table to the proposed elevation of each system's floors verified through on-site soil test borings or pits;
- scaled drawings showing the locations of each proposed system, any surface water, water supply wells, property boundaries, and other pertinent information;
- details concerning the proposed materials of construction;
- relevant engineering calculations; and
- a full description of the system's proposed components, including any reference to practices specified in the USDA NRCS Technical Guide, Section IV.

4.5.18 Requirements for Digesters for Biogas Production

New Installation - Plans and Specifications: New construction of digester facilities for biogas production shall be in accordance with USDA Natural Resources Conservation (NRCS) Standard No. 313, Waste Storage Facility from Section IV of the Wisconsin Field Office Technical Guide and any applicable local zoning ordinances. Additional requirements under ch. NR 213, Wis. Adm. Code, may apply based on materials added or chemical characterization of the digester influent/effluent. Exemptions to the design criteria may be given on a case-by-case basis. Prior written approval is required. The following (minimum) information shall be included in the plans and specifications submitted for the new construction of a digester for biogas production (three complete copies are required):

- the adequacy of each facility's proposed linings to prevent exfiltration of manure (untreated or digested) and other contaminants to groundwater and the facility's ability to permanently meet the conditions in the General Discharge Limitations and Performance Standards subsection;
- information on increased flow to the various components of the system, including the adequacy of Lagoon 1 at the Home Farm to maintain 6 months storage;
- the proximity of bedrock and the water table to the proposed elevation of each facility's floors verified through on-site soil test borings or pits;
- scaled drawings showing the locations of each proposed storage unit, any surface water, water supply wells, property boundaries, and other pertinent information;
- details concerning the proposed materials of construction;
- relevant engineering calculations;
- each proposed facility's ability to meet the intent of the performance criteria and specifications outlined in NRCS Standard No. 313, Waste Storage Facility contained in the Technical Guide; and
- additional design considerations based on operation of the digester (e.g., proposed additives, operational temperatures, etc.).

Influent/Effluent Characterization: Prior to introducing any influent additives to the methane digester other than manure, the permittee shall gain written Department approval. If any materials other than manure are used for biogas

digestion, the operator shall maintain daily records of the volumes of all manure and non-manure components comprising the digester influent. Additional regulations may apply under ch. NR 213 and ch. NR 214 if either:

- materials other than manure comprise 10% or greater of the total digester volume, or
- the Department determines that the chemical characterization of the influent/effluent is of concern.

As part of the Department's review, the need for a Management Plan Amendment or permit modification will be determined.

4.5.19 Quarterly Inspection Reports

The written quarterly inspection reports shall include at a minimum the following information:

- the date and name of person(s) performing the inspection;
- an inspection description (including components inspected);
- details of what was discovered during the inspection;
- recommendations for repair or maintenance; and
- any actions taken.

4.5.20 Annual Reports

Annual Reports are due each year by the date specified in the Schedules section of this permit. The permittee shall submit annual reports for all manure, compost, compost leachate and other process wastewater that is landspread. These Annual Reports will cover the previous calendar year or cropping year, and shall include lab analyses of the wastes landspread. Also due with the Annual Reports is a Monitoring and Inspection Program Report for the animal production area of the operation and land application equipment inspections. The Monitoring and Inspection Program Report shall include identified permit violations and dates of occurrence (including overflows of liquid storage and containment structures and number of missed inspections), corrective actions taken, recorded levels of materials in liquid storage and containment structures and other recorded information requested by the Department in writing.

4.5.21 Objectionable Odors

The Permittee is advised to consider the practices recommended in the American Society of Agricultural Engineers practice #EP 379 or other methods for the purpose of ensuring compliance with s. NR 429.03, "Malodorous emissions", Wis. Adm. Code. Odor control requirements may be imposed by order of the Department under s. 285.83, Stats., if the Department determines that a violation of s. NR 429.03, "Malodorous emissions", Wis. Adm. Code, occurs.

5 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
Livestock Operations - Monitoring & Inspection Program -Proposed Monitoring Program	January 31, 2007	13
Manure Management Plan With Phosphorus Limitations -Management Plan Submittal	December 1, 2006	13
Manure Management Plan With Phosphorus Limitations -Phosphorus Strategy	December 1, 2006	13
Manure Management Plan With Phosphorus Limitations -Phosphorus Strategy Implementation	December 1, 2006	13
Manure Management Plan With Phosphorus Limitations -Management Plan Annual Update #1	July 1, 2007	13
Manure Management Plan With Phosphorus Limitations -Management Plan Annual Update #2	July 1, 2008	13
Manure Management Plan With Phosphorus Limitations -Management Plan Annual Update #3	July 1, 2009	13
Manure Management Plan With Phosphorus Limitations -Management Plan Annual Update #4	July 1, 2010	13
Manure Management Plan With Phosphorus Limitations -Ongoing Management Plan Annual Updates	July 1, 2011	13
Annual Reports -Submit Annual Report #1	September 1, 2007	14
Annual Reports -Submit Annual Report #2	September 1, 2008	14
Annual Reports -Submit Annual Report #3	September 1, 2009	14
Annual Reports -Submit Annual Report #4	September 1, 2010	14
Annual Reports -Ongoing Annual Reports	September 1, 2011	14
Pasture Management Plan -Submit Pasture Management Plan	December 1, 2006	14
Manure Storage Facility - Engineering Evaluation - Home Farm -Retain Expert	December 1, 2006	14
Manure Storage Facility - Engineering Evaluation - Home Farm -Written Report	June 1, 2007	14
Manure Storage Facility - Engineering Evaluation - Home Farm -Plans and Specifications	August 1, 2007	14
Manure Storage Facility - Engineering Evaluation - Home Farm - Corrections and Post Construction Documentation	December 31, 2007	14
Runoff Control System - Engineering Evaluation - Home Farm -Complete Engineering Evaluation	December 1, 2006	15
Runoff Control System - Engineering Evaluation - Home Farm -Written	June 1, 2007	15

Description of Existing System		
Runoff Control System - Engineering Evaluation - Home Farm -Plans and Specifications	August 1, 2007	15
Runoff Control System - Engineering Evaluation - Home Farm -Corrections and Post Construction Documentation	December 31, 2007	15
Runoff Control System - Installation - Hoffman Farm -Plans and Specifications	June 1, 2007	15
Runoff Control System - Installation - Hoffman Farm -Complete Installation	December 31, 2007	15
Runoff Control System - Installation - Powers Farm - Concrete Lot -Plans and Specifications	June 1, 2007	15
Runoff Control System - Installation - Powers Farm - Concrete Lot - Complete Installation	December 31, 2007	15
Runoff Control System - Abandonment - Powers Earthen Lot - Abandonment Plan	June 1, 2007	15
Runoff Control System - Abandonment - Powers Earthen Lot -Complete Abandonment	December 21, 2007	15
Runoff Control System - Abandonment - Kidd Farm Earthen Lot - Abandonment Plan	June 1, 2007	16
Runoff Control System - Abandonment - Kidd Farm Earthen Lot -Complete Abandonment	December 31, 2007	16
Runoff Control System - Abandonment - Kidd Farm Concrete Lot - Abandonment Plan	June 1, 2008	16
Runoff Control System - Abandonment - Kidd Farm Concrete Lot - Complete Abandonment	December 31, 2008	16
Manure Storage Facility - Engineering Evaluation - Kidd Farm -Retain Expert	December 1, 2006	16
Manure Storage Facility - Engineering Evaluation - Kidd Farm -Written Report	June 1, 2007	16
Manure Storage Facility - Engineering Evaluation - Kidd Farm -Plans and Specifications	August 1, 2007	16
Manure Storage Facility - Engineering Evaluation - Kidd Farm -Corrections and Post Construction Documentation	December 31, 2007	16
Runoff Control System - Abandonment - Schultz Farm -Abandonment Plan	June 1, 2008	16
Runoff Control System - Abandonment - Schultz Farm -Complete Abandonment	December 31, 2008	16
Composting System Installation -Plans and Specifications	See Permit	16
Digester Influent/Effluent Characterization -Description of Digester Influent/Effluent	See Permit	17
Digester Influent/Effluent Characterization -Preliminary Digester	See Permit	17

Management Plan Approval		
Digester Influent/Effluent Characterization -Management Plan Amendment	See Permit	17
Submit Permit Reissuance Application -Reissuance Application	April 1, 2011	17
Characteristic Form 3400-49	January 31 following each year of analysis	20
Land Application Report Form 3400-55	January 31, following each year waste is land applied	20
Report Form 3400-52	by January 31, following each year waste is hauled to another facility, landfilled, incinerated, or stored in a manure pit	20

All submittals required by this permit shall be submitted to the South Central Region, 3911 Fish Hatchery Road, Fitchburg, WI 53711-5397, except as follows. Report forms shall be submitted to the address printed on the report form.